

What is claimed is:

1.               Semi-conducting thin sheet wedges comprising:  
                  a mica matrix, wherein said mica matrix comprises mica flakes; and  
                  a conductive resin impregnated within said mica matrix;  
                  wherein said thin sheet wedges have a semi-conductive property of  
                  between 500-500,000 ohms per square.
2.               The semi-conducting thin sheet wedges of claim 1, wherein said  
                  thin sheet wedges have a thickness of between about 15-80 mils (0.38-2.0  
                  mm).
3.               The semi-conducting thin sheet wedges of claim 1, wherein said  
                  mica flakes comprise at least one of muscovite, phlogopite and combinations  
                  thereof.
4.               The semi-conducting thin sheet wedges of claim 1, wherein said  
                  resin comprises approximately 15-40% by weight of said thin sheet wedges.
5.               The semi-conducting thin sheet wedges of claim 1, wherein said  
                  resin is C-black.
6.               The semi-conducting thin sheet wedges of claim 1, wherein said  
                  thin sheet wedges have a tensile modulus of between 1-8 million PSI.
7.               The semi-conducting thin sheet wedges of claim 1, wherein said  
                  thin sheet wedges further comprises at least one glass fiber layer.
8.               The semi-conducting thin sheet wedges of claim 7, wherein the  
                  ratio of the mica in said mica matrix to the glass fiber is approximately  
                  between 2:1 and 7:1 by weight.

9. The semi-conducting thin sheet wedges of claim 7, wherein said at least one glass fiber layer forms a backing for said mica matrix.
10. The semi-conducting thin sheet wedges of claim 7, wherein said at least one glass fiber layer is interwoven with said mica matrix.
11. The semi-conducting thin sheet wedges of claim 10, wherein said at least one glass fiber layer is interwoven in a half-lap manner.
12. Semi-conducting thin sheet wedges comprising:  
a mica matrix, wherein said mica matrix comprises mica flakes;  
  
at least one layer of glass fiber; and  
  
a conductive resin impregnated within at least one of said mica matrix and said at least one layer of glass fiber;  
  
wherein said thin sheet wedges have a semi-conductive property of between 500-500,000 ohms per square;  
  
wherein said thin sheet wedges have a tensile modulus of between 1-8 million PSI.
13. The semi-conducting thin sheet wedges of claim 12, wherein the ratio of the mica in said mica matrix to the glass fiber is approximately between 2:1 and 7:1 by weight.
14. The semi-conducting thin sheet wedges of claim 12, wherein said at Least one glass fiber layer forms a backing for said mica matrix.
15. The semi-conducting thin sheet wedges of claim 12, wherein said at least one glass fiber layer is interwoven with said mica matrix.

16. The semi-conducting thin sheet wedges of claim 15, wherein said at least one glass fiber layer is interwoven in a half-lap manner.
17. The semi-conducting thin sheet wedges of claim 12, wherein said mica flakes comprise at least one of muscovite, phlogopite and combinations thereof.
18. The semi-conducting thin sheet wedges of claim 12, wherein said resin comprises approximately 15-40% by weight of said thin sheet wedges.
19. The semi-conducting thin sheet wedges of claim 12, wherein said resin is C-black.
20. A method for making semi-conductive thin sheet wedges comprising:
  - layering a mica matrix onto a glass fiber backing, wherein said mica matrix comprises mica flakes;
  - impregnating into said mica matrix and said glass fiber a conductive resin; and
  - curing said conductive resin.